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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/687,573	10/15/2003	Edward J. Seppi		7129
23639	7590	06/10/2005		
BINGHAM, MCCUTCHEN LLP THREE EMBARCADERO CENTER 18 FLOOR SAN FRANCISCO, CA 94111-4067			EXAMINER YUN, JURIE	
			ART UNIT 2882	PAPER NUMBER

DATE MAILED: 06/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/687,573	SEPPI ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Jurie Yun	2882	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 08 April 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-15, 21-34 and 39-42 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-15, 21-34 and 39-42 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>4/9/04, 5/17/04</u> . | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

1. The amendment and response to restriction/election requirement filed 4/8/05 have been entered.

#### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 4 and 5 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for X-ray sources, does not reasonably provide enablement of the X-ray filter for use in an MRI machine and PET machine. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the invention commensurate in scope with these claims. MRI and PET machines do not use X-ray sources, so it is not clear how the apparatus would be used in these machines.

4. Claim 26 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement, because it claims a null filter factor which means no filter, which contradicts claim 21 which requires a first and second filter factor.

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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6. Claims 4 and 5 are rejected under 35 U.S.C. 112, second paragraph, as failing to set forth the subject matter which applicant(s) regard as their invention. The claims do not further limit the structure of the parent claim, in addition to reciting intended use.

7. Claims 24 and 26 are rejected under 35 U.S.C. 112, second paragraph, as failing to set forth the subject matter which applicant(s) regard as their invention. These claims contradict the parent claim. In claim 24, there is claimed the first and second filters are the same, which contradicts the parent claim which claims two different filters, and claim 26 claims no second filter, which likewise contradicts the parent claim.

***Claim Rejections - 35 USC § 102***

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

9. Claims 1-3, 9-12, 14, 15, 21-23, 25, 27-33, and 39-41 are rejected under 35 U.S.C. 102(e) as being anticipated by Bogatu et al. (USPN 6,614,878 B2).

10. With respect to claim 1, Bogatu et al. disclose an apparatus for use in a radiation procedure, comprising: a radiation filter (Fig. 3) having a first portion (34) and a second portion (36), the first and the second portions forming a layer for filtering radiation impinging thereon; wherein the first portion is made from a first material having a first X-

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ray filtering characteristic, and the second portion is made from a second material having a second X-ray filtering characteristic (column 6, lines 61+).

11. With respect to claim 21, Bogatu et al. disclose a method for generating image data, comprising: generating a X-ray radiation; applying a first filter factor (Fig. 3, 34) to the X-ray radiation to obtain a first filtered radiation; generating a first set of image data in response to the first filtered radiation; applying a second filter factor (36) to the X-ray radiation to obtain a second filtered radiation; and generating a second set of image data in response to the second filtered radiation; wherein the first and the second filter factor is applied automatically using a machine (column 6, lines 22-60).

12. With respect to claim 39, Bogatu et al. disclose an apparatus for use in a radiation procedure, comprising: a structure (Fig. 3, 30); a first radiation filter (34) secured to the structure; a second radiation filter (36) secured to the structure; and a positioner (Fig. 2, 42 & 40) coupled to the structure (30), the positioner configured to move the structure between a first position and a second position, wherein the first radiation filter is adapted to receive a radiation when the structure is in the first position, and the second radiation filter is adapted to receive the radiation when the structure is in the second position (column 6, lines 22-60).

13. With respect to claim 2, Bogatu et al. disclose a radiation source (Fig. 2, 12) for generating the radiation (14).

14. With respect to claim 3, Bogatu et al. disclose a gantry (Fig. 2, 28) to which the radiation source (12) is secured.

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15. With respect to claim 9, Bogatu et al. disclose an imager for generating image data in response to radiation that has been filtered by the layer (column 6, lines 44+).

16. With respect to claims 10 and 29-33, Bogatu et al. disclose the imager has a first image element for generating a first image data in response to radiation that has been filtered by the first portion of the radiation filter, and a second image element for generating a second image data in response to radiation that has been filtered by the second portion of the radiation filter (column 6, lines 22-60).

17. With respect to claim 11, Bogatu et al. disclose a gantry (28), wherein the imager (24) and the radiation filter (30) are secured to the gantry.

18. With respect to claim 12, Bogatu et al. disclose the imager (24) is coupled to a structure for supporting an object (26) to which filtered radiation (20a/b/c) is directed.

19. With respect to claim 14, Bogatu et al. disclose the first portion (34) and the second portion (36) are secured to a structure (30).

20. With respect to claim 15, Bogatu et al. disclose the first portion (34) is secured to a first structure (54), and the second portion (36) is secured to a second structure (54) (column 7, lines 15-16).

21. With respect to claims 22 and 23, Bogatu et al. disclose the first filter factor is applied by placing a first filter into the X-ray radiation, and the second filter factor is applied by placing a second filter into the X-ray radiation (column 6, lines 22-60).

22. With respect to claim 25, Bogatu et al. disclose the first filter factor is different from the second filter factor (column 6, lines 61+).

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23. With respect to claim 27, Bogatu et al. disclose the first filter factor and the second filter factor are applied by placing a first filter and a second filter, respectively, into the X-ray radiation (column 6, lines 22-60).
24. With respect to claim 28, Bogatu et al. disclose the first filter (34) and the second filter (36) are secured to a structure (rotating wheel, 30), and the first and the second filters are placed into the X-ray radiation by rotating the structure.
25. With respect to claim 40, Bogatu et al. disclose the structure comprises a wheel (30).
26. With respect to claim 41, Bogatu et al. disclose the positioner comprises a motor (40).

***Claim Rejections - 35 USC § 103***

27. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

28. Claims 6-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bogatu et al. (USPN 6,614,878 B2) as applied to claims 1 and 2 above, and further in view of Plessis et al. (USPN 4,731,807).
29. With respect to claim 6, Bogatu et al. do not disclose the radiation source comprises an anode that includes a rare earth element, a platinum group metal, or combination thereof. Plessis et al. disclose a radiation source anode that includes a

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rare earth element, a platinum group metal, or combination thereof (column 4, line 29).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use an anode that includes a rare earth element, a platinum group metal, or combination thereof in the Bogatu et al. apparatus, because these are capable of emitting X-rays. The choice of anode material is dependent on the application being done.

30. With respect to claims 7 and 8, Bogatu et al. do not disclose the radiation source comprises a voltage generator, and a switching element coupled to the voltage generator, the switching element configured to modulate the voltage generated by the voltage generator. Plessis et al. disclose a voltage generator (19). While Plessis et al. do not specifically disclose the switching element for the voltage generator, it is obvious it is included because there needs to be something to control the negative output (5) and the positive output (36) of the voltage generator (19). It would have been obvious to one of ordinary skill in the art at the time the invention was made to include a voltage generator and a switching element coupled to the voltage generator in the Bogatu et al. radiation source, to enable controlling the energy of the X-rays emitted, as taught by Plessis et al.

31. Claims 13, 34, and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bogatu et al. (USPN 6,614,878 B2) as applied to claims 1, 21, 27, and 39 above, and further in view of Albagli (USPN 6,418,193 B1).

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32. With respect to claims 13, 34, and 42, Bogatu et al. do not disclose either or both of the first and second materials are selected from the group consisting of aluminum, copper, and molybdenum. Albagli discloses filters consisting of aluminum, copper, and molybdenum (column 1, lines 14-17). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have either or both of the first and second materials of Bogatu et al. selected from the group consisting of aluminum, copper, and molybdenum, depending on the X-ray spectrum desired, as taught by Albagli. The choice of filter material depends on the application being done.

### ***Conclusion***

33. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Pfeiler (USPN 4,433,431) discloses a rotating anode X-ray tube with different filters. Mistretta et al. (USPN 3,854,049) disclose two different X-ray filters used in an X-ray apparatus. Shimura et al. (USPN 4,859,849) disclose changing filters in a radiation image recording apparatus. Fujisaki (USPN 4,933,960) discloses a filter selection method.

34. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jurie Yun whose telephone number is 571 272-2497. The examiner can normally be reached on Monday-Friday 8:30-5:00pm.

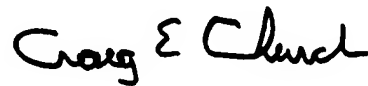
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ed Glick can be reached on 571 272-2490. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Jurie Yun  
June 6, 2005



Craig E. Church  
Primary Examiner